



**Montana Department of  
ENVIRONMENTAL QUALITY**

Brian Schweitzer, Governor

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Helena, MT 59620-0901

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PRELIMINARY DETERMINATION  
ON PERMIT APPLICATION

Date of Mailing: July 31, 2008

Name of Applicant: Helena Sand & Gravel, Inc.

Source: Portable Wash Plant

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Permit Application Number 4244-00.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by September 2, 2008. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-3490

Christine A. Weaver  
Air Quality Specialist  
Air Resources Management Bureau  
(406) 444-5287

VW:cw  
Enclosure

## AIR QUALITY PERMIT

Issued To: Helena Sand & Gravel, Inc.  
P.O. Box 5960  
Helena, MT 59604

Permit: #4244-00  
Application Complete: 7/30/08  
Preliminary Determination Issued: 7/31/08  
Department's Decision Issued:  
Permit Final:  
AFS #: 777-4244

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Helena Sand & Gravel, Inc. (Helena Sand & Gravel) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### SECTION I: Permitted Facilities

#### A. Permitted Equipment

Helena Sand & Gravel operates a portable wash plant powered by a diesel-fired generator. A list of the permitted equipment is contained in Section I.A of the permit analysis.

#### B. Plant Location

Helena Sand & Gravel operates a portable wash plant operation, powered by a diesel generator, which will initially locate in Section 19, Township 10 North, Range 2 West, in Lewis & Clark County, Montana. MAQP #4244-00 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program and those areas considered tribal lands. Addendum #1 applies while operating in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County.*

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. Helena Sand & Gravel shall not cause or authorize to be discharged into the atmosphere, from any sources, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
2. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1 (ARM 17.8.749 and ARM 17.8.752).
3. Helena Sand & Gravel shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).
4. Helena Sand & Gravel shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.3 (ARM 17.8.749 and ARM 17.8.752).

5. Helena Sand & Gravel shall not operate more than one screen and the maximum rated design capacity shall not exceed 450 tons per hour (TPH) (ARM 17.8.749).
6. Screening production from the wash plant screen is limited to 3,942,000 tons during any rolling 12-month time period (ARM 17.8.749).
7. Helena Sand & Gravel shall not operate more than one diesel-fired generator at any given time and the maximum rated design capacity of the engine shall not exceed 744 horsepower (hp) (ARM 17.8.749).
8. Operation of the diesel engine-powered generator shall not exceed 6,900 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
9. If the permitted equipment is used in conjunction with any other equipment owned or operated by Helena Sand & Gravel, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
10. Helena Sand & Gravel shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

#### B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures manual (ARM 17.8.106).
2. The Department may require further testing (ARM 17.8.105).

#### C. Operational Reporting Requirements

1. If this portable wash plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. Helena Sand & Gravel shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. Helena Sand & Gravel shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).
4. Helena Sand & Gravel shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by Helena Sand & Gravel as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
5. Helena Sand & Gravel shall document, by month, the screening production from the facility. By the 25th day of each month, Helena Sand & Gravel shall calculate the screening production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.6. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Helena Sand & Gravel shall document, by month, the hours of operation of the diesel generator. By the 25th day of each month, Helena Sand & Gravel shall calculate the hours of operation for the diesel generator for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
7. Helena Sand & Gravel shall annually certify that its emissions are less than those that would require the facility to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

### SECTION III: Notification

1. Helena Sand & Gravel shall provide the Department with written notification of commencement of construction of a new engine within 30 days after commencement of construction (ARM 17.8.749).
2. Helena Sand & Gravel shall provide the Department with written notification of the actual start-up date, engine model, hp, and model year of a new engine within 15 days after the actual start-up date (ARM 17.8.749).

### SECTION IV: Addendum

Helena Sand & Gravel shall comply with all conditions in Addendum #1 to MAQP #4244-00, as applicable (ARM 17.8.749).

## SECTION V: General Conditions

- A. Inspection – Helena Sand & Gravel shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Helena Sand & Gravel fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Helena Sand & Gravel of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756)
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Helena Sand & Gravel may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must be begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. Helena Sand & Gravel shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

Permit Analysis  
Helena Sand & Gravel, Inc.  
Permit #4244-00

I. Introduction/Process Description

Helena Sand & Gravel, Inc. (Helena Sand & Gravel) owns and operates a portable gravel wash plant.

A. Permitted Equipment

Helena Sand & Gravel has requested this permit to own and operate a portable wash plant. Equipment used at the wash plant will include a portable 3-deck screen (maximum capacity up to 450 tons per hour (TPH)), a diesel generator with an engine rated up to 744 horsepower (hp)), a diesel storage tank (up to 4,000-gallons), and associated equipment.

The original location for the facility will be in Section 19, Township 10 North, Range 2 West, in Lewis & Clark County, Montana. MAQP #4244-00 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program and those areas considered tribal lands. Addendum #1 applies while operating in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County.*

B. Source Description

Helena Sand & Gravel proposes to use this portable wash plant and associated equipment to sort sand and gravel materials for use in various construction operations. For a typical operational setup, materials are loaded into the wash plant, transferred by conveyor, and passed through the screen. Materials are washed, separated, and sent to stockpile for sale and use in construction operations.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

Helena Sand & Gravel shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to:

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

Helena Sand & Gravel must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Helena Sand & Gravel shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Helena Sand & Gravel is not considered an NSPS- affected facility under 40 CFR Part 60, as described below:
  - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
  - b. 40 CFR 60, Subpart OOO, Non-Metallic Mineral Processing Plants. Based on the information submitted by Helena Sand & Gravel, the wash plant and associated screen does not meet the definition of an affected facility, since stand-alone screens are exempted from Subpart OOO in 40 CFR 60.670(2). However, if Helena Sand & Gravel operates this equipment at a facility with a crusher or grinding mill, the screen would be subject to the conditions in Subpart OOO.
  - c. 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), indicates that NSPS requirements apply to owners or operators of stationary CI ICE that commence construction, modification, or reconstruction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006, and is not a fire pump engine. Furthermore, CI ICE will be subject to this NSPS standard only if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year.

The proposed generator with a 744-hp diesel engine is a CI ICE manufactured before April 1, 2006 and is therefore not subject to this NSPS. However, since this permit is written in a de minimis friendly manner, should the proposed diesel engine/generator be replaced with an engine manufactured after April 1, 2006, NSPS requirements would apply to that engine/generator.
8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:
  - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a Maximum Achievable Control Technology (MACT) Subpart as listed below:



- b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). As an area source, any diesel RICE engine operated by Helena Sand & Gravel that is new or reconstructed after June 12, 2006, will be subject to this MACT standard if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year.

The proposed diesel generator was not manufactured after June 12, 2006. However, since this permit is written in a de minimis friendly manner, should the proposed diesel generator be replaced with one manufactured after June 12, 2006, MACT requirements would apply to that engine/generator.

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Helena Sand & Gravel submitted the appropriate permit application fee for the current permit action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any asphalt plant, crusher or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Helena Sand & Gravel has a PTE greater than 15 tons per year of particulate matter (PM), oxides of nitrogen (NO<sub>x</sub>), and carbon monoxide (CO); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. Helena Sand & Gravel submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. Helena Sand & Gravel submitted an affidavit of publication of public notice for the July 30, 2008, issue of the *Independent Record*, a newspaper of general circulation in the Town of Helena in Lewis & Clark County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that Best Available Control Technology (BACT) shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Helena Sand & Gravel of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
15. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE greater than 100 tons/year of any pollutant;
  - b. PTE greater than 10 tons/year of any one Hazardous Air Pollutant (HAP), PTE greater than 25 tons per year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
  - c. PTE greater than 70 tons/year of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #4244-00 for Helena Sand & Gravel, the following conclusions were made:

- a. The facility's PTE is below 100 tons per year after consideration of a limitation on operating hours for the diesel-fired generator.
- b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/ year of all HAPs.
- c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
- d. This facility is not currently subject to any NSPS standard.
- e. This facility is not currently subject to any NESHAP standards.
- f. This source is neither a Title IV affected source nor a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.
- h. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.
  - i. In applying for an exemption under this section the owner or operator of the facility shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.
  - ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

Based on these facts, the Department determined that Helena Sand & Gravel will be a synthetic minor source of emissions and is exempt from obtaining a Title V Operating Permit. However, the wash plant and diesel engine powered generator permitted under #4244-00 may be operated with other emitting units owned/operated by Helena Sand & Gravel and located on contiguous or adjacent property. If this equipment has the potential to be used in conjunction with other equipment under the same 2-digit Standard Industrial Classification (SIC) Code, or as support equipment for another Helena Sand & Gravel facility, then the potential emissions must be considered in aggregate. Therefore, there could be the potential for this source, as well as the source(s) of emissions that this source is being used with, to have an aggregated potential to emit greater than the 100 TPY threshold for the Title V operating permit program. If this situation arises, Helena Sand & Gravel is expected to modify their permit(s) so that federally enforceable permit limits can be included to keep the potential emissions below major source permitting thresholds or to apply for and receive a Title V operating permit.

3. ARM 17.8.1207, Certification of Truth, Accuracy, and Completeness. The compliance certification submittal by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

### III. BACT Determination

A BACT determination is required for each new or altered source. Helena Sand & Gravel shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

#### A. Area Source Fugitive PM/PM<sub>10</sub> Emissions and Wash plant PM/PM<sub>10</sub> Emissions

Two types of emissions controls are readily available and used for dust suppression of fugitive emissions at the site, fugitive emissions for the surrounding area of operations, and for equipment emissions from the wash plant operation. These two control methods are water and chemical dust suppressant. Chemical dust suppressant could be used for dust suppression on the area surrounding the wash plant operation and for emissions from the wash plant operation. However, because water is more readily available, is more cost-effective, is equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions for the general plant area. In addition, water suppression has been required of recently permitted similar sources. However, Helena Sand & Gravel may use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area where it would assist in reducing emissions of particulate matter.

Helena Sand & Gravel shall not cause or authorize to be discharged into the atmosphere from any screen, or associated equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes. Helena Sand & Gravel must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general area of operation.

Helena Sand & Gravel is required to have water spray bars and water available on site (at all times) and to apply the water, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. Helena Sand & Gravel may also use chemical dust suppression to maintain compliance with emissions limitations in Section I.A of Permit #4244-00. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the wash plant operation.

#### B. Diesel Generators

Because of the limited amount of emissions produced by the diesel generators and the lack of readily available and cost effective add-on controls, add-on controls would be cost prohibitive for the proposed diesel-fired generator. Therefore, the Department determined that proper operation and maintenance with no additional controls constitutes BACT for the diesel generator in this case.

#### C. Diesel Storage Tank

Because of the limited amount of emissions produced by the diesel storage tank, any add-on controls would be cost prohibitive for the proposed diesel storage tank. Therefore, the Department determined that proper operation with no additional controls constitutes BACT for the diesel storage tank in this case.

The control options required for the proposed wash plant facility, the diesel generator, and the diesel storage tank are similar to other recently permitted similar sources.

#### IV. Emission Inventory

Source	Tons/Year					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
Screen (450 TPH Combined Capacity)	4.34	1.45				
Truck Unloading	0.03	0.03				
Material Transfer	0.57	0.18				
Pile Forming	6.35	3.02				
Bulk Loading	0.09	0.09				
Diesel Generator (744 hp engine)	5.66	5.66	79.56	6.35	17.15	6.42
Haul Roads	12.68	3.60				
Diesel Storage Tank (up to 4,000 gallon)				0.00		
<b>Total</b>	<b>29.72</b>	<b>14.04</b>	<b>79.56</b>	<b>6.35</b>	<b>17.15</b>	<b>6.42</b>
*A complete emission inventory for MAQP #4244-00 is on file with the Department.						
**Diesel generator engine restricted to 6,900 hours per 12-month rolling timeframe.						

#### V. Air Quality Impacts

Based on the relatively small amount of emissions resulting from the Helena Sand & Gravel operation and the limits and conditions that would be included in MAQP #4244-00 and Addendum #1, the Department believes that the allowable/permitted emissions from this source will not cause or contribute to an exceedance of any ambient air quality standard while operating in any area classified as attainment or unclassified for the ambient air quality standards.

#### VI. Ambient Air Impact Analysis

The Department determined, based on the relatively small amount of emissions resulting from the Helena Sand & Gravel operation and the limits and conditions that would be included in MAQP #4244-00 and Addendum #1, that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

Addendum #1  
Helena Sand & Gravel, Inc.  
Permit #4244-00

An addendum to Montana Air Quality Permit (MAQP) #4244-00 is issued to Helena Sand & Gravel, Inc. (Helena Sand & Gravel) pursuant to Sections 75-2-204 and 75-2-211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment

Helena Sand & Gravel proposes to own and operate a portable wash plant. Equipment used at the facility will include a portable 3-deck screen (maximum capacity up to 450 tons per hour (TPH)), a diesel generator with an engine rated up to 744 horsepower (hp)), a diesel storage tank (up to 4,000-gallons), and associated equipment.

Helena Sand & Gravel operates at various locations throughout Montana, including in or within 10 kilometers (km) of the following particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas: Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish.

II. Seasonal and Site Restrictions

Addendum #1 applies to Helena Sand & Gravel while operating at any location in or within 10 km of certain PM<sub>10</sub> nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the winter season (October 1-March 31) – the only location(s) in or within 10 km of certain PM<sub>10</sub> nonattainment areas where Helena Sand & Gravel may operate is any site that may be approved, in writing, by the Department of Environmental Quality (Department).
- B. During the summer season (April 1-September 30) – Helena Sand & Gravel may operate at any location in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish PM<sub>10</sub> nonattainment areas.
- C. Helena Sand & Gravel shall comply with the limitations and conditions contained in Addendum #1 to MAQP #4244-00. Addendum #1 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum #1 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

- A. Operational Limitations and Conditions – **Winter Season (October 1 – March 31) and Summer Season (April 1 – September 30)**
  - 1. Water spray bars must be operated, when necessary, on the screen and all transfer points whenever the wash plant is operating (ARM 17.8.749).
  - 2. All visible emissions from the wash plant may not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
  - 3. Helena Sand & Gravel shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

4. Helena Sand & Gravel shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
5. Helena Sand & Gravel shall treat all unpaved portions of the haul roads, access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
6. Helena Sand & Gravel shall not operate more than one screen at any one time. Screening production shall be limited to 10,800 tons per day (ARM 17.8.749).
7. Helena Sand & Gravel shall not operate more than one diesel-fired generator at any one time. The generator engine shall not exceed 744 hp. The hours of operation of the diesel-fired generator shall not exceed 22 hours during any day, not to exceed 6,900 hours per year (ARM 17.8.749).

B. Operational Reporting Requirements

1. If this wash plant is moved to another nonattainment location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. Helena Sand & Gravel shall document, by day, the total screening production. Helena Sand & Gravel shall sum the total screening production for the previous day to verify compliance with the limitation in Section III.A.6. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.752).
3. Helena Sand & Gravel shall document, by day, the diesel-fired generator operation. Helena Sand & Gravel shall document the generator operation for the previous day to verify compliance with the limitation in Section III.A.7. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.752).
4. Production information for the sites covered by this addendum must be maintained for five years and submitted to the Department upon request. The information must include (ARM 17.8.749):
  - a. Tons of material screened at each site (including amount of recirculated/rerun material),
  - b. Tons of bulk material loaded at each site (production),
  - c. Daily hours of operation at each site,
  - d. Gallons of diesel used by the generator at each site,



- e. Daily hours of operation and size of the generator engine at each site,
- f. Fugitive dust information consisting of the total miles driven on unpaved roads for all plant vehicles.

Addendum #1 Analysis  
Helena Sand & Gravel, Inc.  
Permit #4244-00

I. Permitted Equipment

Helena Sand & Gravel, Inc. has proposed to own and operate a portable wash plant. Equipment used at the facility will include a portable 3-deck screen (maximum capacity up to 450 tons per hour (TPH)), a diesel generator with an engine rated up to 744 horsepower (hp)), a diesel storage tank (up to 4,000-gallons), and associated equipment.

Helena Sand & Gravel operates at various locations throughout Montana, including in or within 10 kilometers (km) of the following particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas: Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish.

II. Source Description

Helena Sand & Gravel proposes to use this wash plant and associated equipment to sort sand and gravel materials for use in various construction operations. For a typical operational setup, materials are loaded into the wash plant by a feeder, transferred by conveyor, and passed through crushers (although there are no crushers included in this permit.). Materials are crushed and sent to screens (although there are no screens included in this permit other than the one preceding the wash plant). Materials are screened, separated, and sent to stockpile for sale and use in construction operations.

III. Applicable Rules and Regulations

The following are partial quotations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department).. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

- A. ARM 17.8.749 Conditions for Issuance of Permit. This rule requires that the source demonstrate compliance with applicable rules and standards before a permit can be issued. Also, a permit may be issued with such conditions as are necessary to assure compliance with all applicable rules and standards. Helena Sand & Gravel demonstrated compliance with all applicable rules and standards as required for permit issuance.
- B. ARM 17.8.764 Modification of Permit. An air quality permit may be modified for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack which do not result in an increase in emissions because of the changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
- C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:

1. Written notice of Intent to Transfer location and proof of public notice are sent to the Department;
2. The source will operate in the new location for a period of less than one year; and
3. The source will not have any significant impact on any nonattainment area or any Class I area.

Helena Sand & Gravel must submit proof of compliance with the transfer and public notice requirements when Helena Sand & Gravel transfers to any of the locations covered by this addendum and will only be allowed to stay in the new location for a period of less than 1 year. Also, the conditions and limitations in Addendum #1 to MAQP #4244-00 will prevent Helena Sand & Gravel from having a significant impact on PM<sub>10</sub> nonattainment areas.

#### IV. Emission Inventory

##### Daily Emission Inventory

Source	lb/day					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
Screen (450 TPH Capacity)	23.76	7.99				
Truck Unloading	0.17	0.17				
Material Transfer	3.02	0.99				
Pile Forming	34.78	16.52				
Bulk Loading	0.52	0.52				
Diesel Generator (744-hp engine)	36.01	36.01	507.41	40.43	109.34	40.92
Haul Roads	69.50	19.75				
Diesel Storage Tank (up to 4,000 gallon)				0.00		
<b>Total</b>	<b>167.76</b>	<b>81.95</b>	<b>507.41</b>	<b>40.43</b>	<b>109.34</b>	<b>40.92</b>
*A complete emission inventory for Addendum #1 (Winter Season) is on file with the Department.						
*Diesel generator operations limited to 22 hrs/day, to restrict emissions to below modeling thresholds.						

#### V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM<sub>10</sub>. Due to exceedances of the national standards for PM<sub>10</sub>, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM<sub>10</sub>. As a result of this designation, EPA required the Department and the City-County Health Departments to submit PM<sub>10</sub> State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM<sub>10</sub> emissions.

Addendum #1 to MAQP #4244-00 is for a portable wash plant to locate at sites in or within 10 km of certain PM<sub>10</sub> nonattainment areas during the winter season (October 1 through March 31). Winter season (October 1 through March 31) operations may include only the locations listed in Section II.A of Addendum #1. Addendum #1 of MAQP #4244-00 would also allow for summertime operations (April 1 through September 30) at any location in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish PM<sub>10</sub> nonattainment areas.

## VI. Air Quality Impacts

Helena Sand & Gravel is allowed to operate a portable wash plant to be located at various locations throughout Montana. MAQP #4244-00 and Addendum #1 will cover the Helena Sand & Gravel wash plant while operating at any location within Montana, excluding those counties that have a Department-approved permitting program and those areas considered tribal lands. In the view of the Department, the amount of controlled particulate emissions generated by this project will not cause concentrations of PM<sub>10</sub> in the ambient air that exceed the ambient air quality standards. In addition, this source is portable and any air quality impacts will be minimal.

## VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

## VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Permitting and Compliance Division**  
**Air Resources Management Bureau**  
**P.O. Box 200901, Helena, MT 59620**  
**(406) 444-3490**

**DRAFT ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Helena Sand & Gravel, Inc.  
P.O. Box 5960  
Helena, MT 59604

*Air Quality Permit number:* #4244-00

*Preliminary Determination Issued:* July 31, 2008

*Department Decision Issued:*

*Permit Final:*

1. *Legal Description of Site:* MAQP #4244-00 would apply while operating at any location in Montana, except those areas having a Department-approved permitting program and areas considered tribal lands. MAQP #4244-00 and Addendum #1 would allow the portable wash plant and diesel generator to operate in or within 10 km of PM<sub>10</sub> nonattainment areas (Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte) during the summer season (April 1-September 30) and within any area approved by the Department, in writing, during the winter season (October 1-March 31).
2. *Description of Project:* The project would consist of installing and operating a 450 TPH screen and wash plant, a diesel-fired generator (with 744 hp engine), a diesel storage tank up to 4,000-gallons, and associated equipment.
3. *Objectives of Project:* The proposed plant would create additional business and revenue for Helena Sand & Gravel and provide for varied construction activity and proposed utility infrastructure requiring sand and gravel materials, state-wide.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Helena Sand & Gravel has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in MAQP #4244-00.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites			X			Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Terrestrials could use the same area as the wash plant operations. The wash plant, including two settling ponds encompassing 2.7 acres, will require construction on less than 5 acres of habitat that is currently pastureland. The 5 acres will be part of the 111-acre sand & gravel pit that has been permitted for opencut mining (out of 422 acres owned by Helena Sand & Gravel at this location). This footprint is relatively small by industrial standards. Another potential impact on terrestrials is from the deposition of air emissions from the wash plant and generator. The wash plant, including the generator, will be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Overall, minor effects on terrestrial life and habitats would be expected.

Impacts on aquatic life and habitats could result from wash plant discharge, storm water runoff, and pollutant deposition, but such impacts would be minor. The wash plant should not have any regular discharge because it will reuse water in a closed-loop system, with settling ponds to remove suspended solids. There should be no significant impact from stormwater runoff, since there are no planned changes to drainage patterns. The minor amounts of water used in controlling dust emissions may have a minor impact on aquatic life and habitat by runoff. Lastly, the wash plant will be considered a minor source of emissions (with seasonal and intermittent operations) and, would only have minor disposition that could reach nearby water bodies. Overall, minor and temporary impacts to aquatic life and habitat would be expected from the proposed wash plant operation.

B. Water Quality, Quantity and Distribution

Water would be used in the wash plant, as well as for dust suppression on the surrounding roadways and areas of operation and for pollution control for equipment operations. According to the Opencut Mining Program EA (finalized June 4, 2008), water supplies include stormwater, on-site wells, and, upon approval of the Bureau of Reclamation, the Helena Valley Irrigation District. This water source would typically be available from

March 20 to December 9th. Use of water from the irrigation district would reduce the amount of water that would otherwise be obtained from on-site wells.

Helena Sand & Gravel estimates that of the 1,950 gallons per minute of water recirculated through the wash plant, the facility would lose 2.8 million gallons per year of water to evaporation. There is not expected to be any wastewater discharge from the wash plant. Furthermore, Helena Sand & Gravel does not propose to have any other discharges into surface water or changes to drainage patterns.

Helena Sand & Gravel is required to use water for dust suppression on the surrounding roadways and areas of operation, as well as controlling process emissions. However, water use would only cause a minor disturbance to these areas, since only relatively small amounts of water would be needed and deposition of air pollutant emissions would be minor (as described in Section 7.F of this EA).

#### C. Geology and Soil Quality, Stability and Moisture

The wash plant operations would have only minor impacts on soils in any proposed site location (due to the construction and use of the wash plant facility) because the facility is relatively small in size, would use only relatively small amounts of water for pollution control, and would only have seasonal and intermittent operations. There will likely be localized effects due to the two settling ponds. However, any impacts to geology and soil quality, stability, and moisture at any proposed operational site would be minor.

Overall, any impacts would be minor because the proposed wash plant operation would typically operate within areas designated for such operations.

#### D. Vegetation Cover, Quantity, and Quality

Because the facility would be a minor source of emissions, by industrial standards, and would typically operate in areas previously designated for aggregate crushing and screening, the impacts from the wash plant facility emissions would be minor and typical. As described in Section 7.F of this EA, the amount of air emissions from this facility would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because the water usage is minimal, as described in Section 7.B, and the associated soil disturbance is minimal, as described in Section 7.C, corresponding vegetative impacts would be minor.

Overall, any impacts would be minor because the proposed wash plant operation would typically operate within areas designated for such operations.

#### E. Aesthetics

The original location for the proposed wash plant is on less than five acres of the 111 acres permitted for gravel removal operations by the Opencut Mining Program. The property is currently undeveloped pastureland, surrounded by residential areas approximately 1,000 to 1,500 feet from the property on the north, southeast, southwest, and west sides of the property. Undeveloped agricultural land abuts the south and east side of the property.

The proposed wash plant operation would be visible and would create additional noise while in operation. Since the area is flat with extended visibility in all directions, the wash plant would typically be visible from abutting properties. However, according to the Opencut Mining EA, the facility operations will be surrounded by a 1,000-ft buffer zone to minimize impact to adjacent roads and residences. In addition, a berm, planted with trees and shrubs, will be constructed along the Valley Drive side of the permit area as the site is developed.

Noise levels from the wash plant operations are expected to be less than or equal to 60 decibels at the property line (about the scale of a normal conversation at 3 to 5 feet), and lower at neighboring properties. However, MAQP #4244-00 and Addendum #1 would include conditions to control emissions, including visible emissions, from the plant. Also, because the wash plant operation is portable, and would operate on an intermittent and seasonal basis, any visual and noise impacts would be minor and short-lived.

#### F. Air Quality

The air quality impacts from the wash plant would be minor because MAQP #4244-00 and Addendum #1 would include conditions limiting the opacity from the plant, as well as requiring water spray bars and other means to control air pollution. Further, MAQP #4244-00 would limit total emissions from the wash plant and any additional equipment owned and operated by Helena Sand & Gravel to 250 tons/year or less at any given operating site, excluding fugitive emissions and Addendum #1 would be more stringent than the MAQP.

The wash plant would be used on a temporary and intermittent basis and typically operate within an area designated for such operations, thereby further reducing potential air quality impacts from the facility. Additionally, the small and intermittent amounts of deposition generated from the wash plant operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction), and would result in only minor impacts to the surrounding environment. Overall, any air quality impacts resulting from the proposed wash plant operation would be minor.

#### G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program (MNHP) in an effort to identify any species of special concern that may be found in the area where the proposed modification will occur. Search results have concluded that there are three species of concern in the area. Area, in this case, will be defined by the township and range of the proposed site, with an additional 1-mile buffer. The species of special concern are the gray wolf, the bald eagle, and the Wedge-leaved Saltbush.

Since the gray wolf is regional, it is unlikely that the installation of a gravel wash plant in a semi-developed area would have any impact on these animals. Likewise, the bald eagle should not be impacted since it is primarily a species of riparian and lacustrine habitats (forested areas along rivers and lakes), although it can have a range of several miles from its nest. Lastly, the range for Saltbush, a vascular plant, extends to approximately 1 mile west of the proposed Helena Sand & Gravel wash plant. There is no evidence that this plant will be impacted by the wash plant.

MAQP #4244-00 and Addendum #1 would cover the proposed wash plant operation while located at various locations throughout the state. Given the temporary and portable nature of the operations, any impacts would be minor and short-lived. In addition, operational conditions and limitations in MAQP #4244-00 and Addendum #1 would be protective of these resources by limiting overall impacts to the surrounding environment.

#### H. Demands on Environmental Resource of Water, Air and Energy

Due to the relatively small size of the facility, the wash plant operation would result in only minor demands on the environmental resources of water, air, and energy for normal operations. Relatively small quantities of water would be used for the wash plant (estimated at 2.8 million gallons per year makeup water for that evaporated from the settling ponds), dust suppression, and control of particulate emissions generated through equipment operations and vehicle traffic at the



site. Energy requirements would be accommodated through the operation of the permitted diesel-fired electric generator only when land line power is not available, and would be minor due to the relatively small amount of diesel fuel required to operate the generator.

In addition, the wash plant would operate on an intermittent and seasonal basis thereby minimizing energy demands. Further, impacts to air resources would be minor because the source would be small by industrial standards, would operate on an intermittent and seasonal basis, and would generate relatively minor amounts of regulated pollutants through normal operations.

#### I. Historical and Archaeological Sites

According to correspondence received from the Montana Historical Society, State Historic Preservation Office (SHPO), there is one cultural resource recorded in the area proposed for the Helena Sand & Gravel wash plant: the Helena Valley Irrigation Canal, which is located on the northern border of the property. However, according to the Opencut Mining Program EA, the canal is located 1000 feet away from the area permitted for operations. In addition, Helena Sand & Gravel is not proposing to discharge any water to the canal or change the drainage patterns, so it is unlikely this resource would be adversely impacted.

Typically, the wash plant would operate within a previously disturbed open-cut pit used for such purposes. According to past correspondence from SHPO, there would be a low likelihood of disturbance to any known archaeological or historical site given any previous industrial disturbance in any area of operation. Therefore, any impact the proposed wash plant would have on historical or archaeological sites in a given area of operation is minor.

#### J. Cumulative and Secondary Impacts

The wash plant operation would cause minor cumulative and secondary impacts to the proposed area of operation because the facility would generate emissions of regulated air pollutants and noise. This facility will be operated in conjunction with other equipment owned and operated by Helena Sand & Gravel as part of a sand and gravel operation that is permitted from the Opencut Mining Program. The other equipment, which will be permitted separately by the Department, may include a crusher, an asphalt plant and a concrete batch plant. However, the wash plant facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores			X			Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals			X			Yes
L	Cumulative and Secondary Impacts			X			Yes

**SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:** The following comments have been prepared by the Department.

**A. Social Structures and Mores**

The wash plant operation could cause minor disruption to the social structures and mores in the area because the source would be a minor industrial source of emissions that would typically operate in a new industrial gravel pit located approximately 1,000 feet from residential areas. However, the wash plant would operate on a temporary and intermittent basis. Further, the facility would be required to operate according to the limits and conditions that would be included in MAQP #4244-00, which would limit the effects to social structures and mores.

**B. Cultural Uniqueness and Diversity**

The cultural uniqueness and diversity of this area would not be impacted by the proposed wash plant operation because the proposed facility would be a portable source, the facility would conduct seasonal and intermittent operations, and the facility would utilize a relatively small number of employees for normal operations. Therefore, the cultural uniqueness and diversity of the area would not be impacted.

**C. Local and State Tax Base and Tax Revenue**

The wash plant operations would have a minor impact on the local and state tax base and tax revenue because the facility would be a minor industrial source, would conduct only seasonal and intermittent operations, and employ 10 – 15 people (which may be transferred from the existing Canyon Ferry Drive facility). Thus, minor impacts to the local and state tax base and revenue would be expected from employees, as well as from increased facility production. Furthermore, the impacts to local tax base and revenue would be minor because the source would continue to be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The wash plant operations would result in only minor impacts to local industrial production since the facility would be a minor source of aggregate production and air emissions. Also, the facility is proposing to initially locate on land that was previously pastureland, and would often locate in areas adjacent to land that could be used for animal grazing and agricultural production. However, because minimal deposition of air pollutants would occur on the surrounding land, only minor and temporary impacts to the surrounding vegetation and land would occur. In addition, the facility operations would be temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts to local agricultural areas.

E. Human Health

MAQP #4244-00 and Addendum #1 would include limits and conditions to ensure that the wash plant facility would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the air emissions from the proposed facility would be minimized by the use of water spray and other process limits that would be required by MAQP #4244-00 and Addendum #1. Also, the facility would operate on a temporary and intermittent basis and pollutants would be widely dispersed (see Section 7.F of this EA). Therefore, only minor impacts would be expected on human health from the proposed wash plant operations.

F. Access to and Quality of Recreational and Wilderness Activities

There is no recreational or wilderness area directly surrounding the site. The facility is located ½ mile south of Canyon Ferry Road, which leads from Helena to Canyon Ferry Reservoir, and therefore the wash plant should have only minimal impact from the road.

Noise levels from the wash plant operations are expected to be less than or equal to 60 decibels at the property line (about the scale of a normal conversation at 3 to 5 feet), and lower at neighboring properties. Noise from the wash plant should not impact recreational and wilderness areas (the Helena Valley Regulating Reservoir is a little less than two miles from the site, and the Hauser Lake area is located over five miles from the site.) Also, the facility would operate on a seasonal and intermittent basis. Therefore, any impacts to the quality of recreational and wilderness activities created by the proposed project would be expected to be minor and short-lived.

G. Quantity and Distribution of Employment

The wash plant operation would require 10 - 15 employees (which may be transferred from the existing Canyon Ferry Drive facility). It can be assumed that this is not enough to not cause immigration into or emigration out of a given area of operation and therefore, the proposed project would not impact the quantity and distribution of employment.

H. Distribution of Population

The proposed project is not anticipated to cause any immigration into or emigration out of a given area. Therefore, the proposed project would not impact the distribution of population.

I. Demands for Government Services

Only minor increases would be seen in traffic on existing roadways in the area while the wash plant operation is in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. Overall, demands for government services would be minor.

J. Industrial and Commercial Activity

The proposed project would represent only a minor increase in the industrial activity in the proposed area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. No additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

MAQP #4244-00 and Addendum #1 would allow Helena Sand & Gravel to operate in areas designated by EPA as attainment or unclassified for the National and Montana Ambient Air Quality Standards (NAAQS/MAAQS). MAQP #4244-00 and Addendum #1 would include limits and conditions that would protect air quality and keep facility emissions in compliance with any applicable ambient air quality standards. In addition to the air quality protection provided by MAQP #4244-00 and Addendum #1, the facility would be a portable source and would have intermittent and seasonal operations, thus, any impacts from the facility would be minor and short-lived.

L. Cumulative and Secondary Impacts

The wash plant operations would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source would be a portable and temporary source.

This facility will be operated in conjunction with other equipment owned and operated by Helena Sand & Gravel as part of a sand & gravel operation that is permitted from the Opencut Mining Program. However, any cumulative impacts to the social and economic aspects of the human environment would be minor and short-lived.

The Opencut Mining EA projects 20,000 off-site deliveries (40,000 one-way trips) will be made annually from the Helena Sand & Gravel site. The proposed wash plant will be part of the production process but not create additional traffic. Only minor economic impacts to the local economy would be expected from the proposed project. Overall, the proposed project would result in only minor and temporary secondary and cumulative impacts to the social and economic aspects of the human environment of the operating site.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a portable wash plant facility. MAQP #4244-00 and Addendum #1 include conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program, Department of Environmental Quality – Opencut Mining Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program, Department of Environmental Quality – Opencut Mining Program

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